DOCS II APPLICATION PROCEDURE:

1. Verify camera is in AUTO mode, Small file size, & date/time are accurate.
2. Setup camera on the tripod, ensure that you are perpendicular to the plume & in sun compliance.
3. Insert Intervalometer, set to 15 second intervals. Start a new observation every hour and/or every time the camera is moved (including zoom).
4. Frame Observation Point in viewfinder with proper background for analysis.
5. Hit start button on intervalometer.
6. Open Virtual Tech app on tablet.
7. Use your initials & facility name to label the new observation.
8. Once GPS finds location, tap "GPS On" to secure the screen to "GPS Off." This will allow you to place the Emission Point icon (emission exit point) and Observation Point icon (point of highest apparent opacity).
9. Under the GPS Off button, tap the Emission Point icon (blue stack) to place the corresponding blue circle over the emission exit point.
10. Tap the Observation Point icon (yellow X) to place the corresponding X over the point of highest apparent opacity.
11. If you need to override the Camera Point location tap the Camera Point icon (red camera) to place the corresponding red square on the true camera location.
12. Tap the weather bar to "Update Weather From NOAA".
13. Back arrow will safely return you to the location screen.
14. Tap the compass dial icon on the top left corner of the location screen to activate the Angle to View (slant angle).
15. Tilt the tablet to match the camera lens angle to Observation Point (be as accurate as possible).
16. Tap anywhere on the screen once you are satisfied with the angle and then select "Ok".
17. Use the back arrow to return to the location screen.
18. Once your camera has finished taking the photos, set the camera on "playback" mode  and the tablet will automatically connect to transfer the images through Eyefi Mobi. If the images have not transferred ensure that the tablet's wifi is on.
19. On the location screen tap the Android menu icon on the bottom bar and then select "Opacity".
20. Choose method, "Camera".
21. Choose the color of emission, then press "Go", a message instructing you to start the intervalometer will appear, press "Ok". This will redirect you to the tablet's image gallery.
22. Select images by checking the boxes aside the image then press back arrow to return to location screen.
23. If you check outside of the box a "Complete Action Using" message will appear, simply press the back arrow and continue selecting the boxes of the images you wish to attach to the observation.
24. Back arrow will then return you safely to the location screen.
25. Tap Android menu icon, if the status is green, select "Upload".
26. Once upload has started, a prompt will appear on the screen asking how you want to share, ignore this and tap the tablet home button to exit the app.
27. You can check the status of the upload by swiping your finger down from the top of the tablet where the icons appear. This will tell you the status of the upload: upload complete, in progress, or failed to upload.
28. If the observation has failed to upload, go back into the VT app, tap the observation you wish to upload from the observation queue (it will be displayed in blue) and then select "Attempt to Send Again".

TIPS

*Back arrow can never harm your observation, all data will save from the point you left it.

*If you are having trouble finding the Emission Point at the optimal zoom, select the Camera Point icon, and then tap on the location you wish to view closer & zoom in (+).

*To refresh all icon locations, toggle GPS On and Off again. OFF or ON next to the GPS will reflect the current status of the GPS services.

STATUS INDICATORS

Blue – This Observation has a Name, Weather, Tilt (Angle to View), Emission Point, Opacity Type and Opacity data, and has been attempted to be sent to the server for review but was not successful

Green – This Observation has a Name, Weather, Tilt (Angle to View), Emission Point, Opacity Type and Opacity data, but has not yet been Uploaded to the server for review

Yellow – This Observation has a Name, Weather, Tilt (Angle to View), Emission Point, but is missing Opacity Type and Opacity data

Red – This Observation has a Name, but is missing one or all of Weather, Tilt (Angle to View), Emission Point, Opacity type and data

APPLICATION ICONS

Emission Point – Place blue circle over the emissions exit source

Observation Point – Place X over the point of highest apparent opacity

Camera Point – Will be set to your GPS location

Angle to View – Press to activate Angle to view recorder

 Android Menu Icon  Android Back Arrow

CANON CAMERA CHECK

1. Time/ Date – Access through Menu → Tools 
2. Time Zone – Access through Menu → Tools
3. File size – S for Small (640x480) – Access through "FUNC SET" 
4. Shooting in Auto (indicated by the top dial) 

NIKON CAMERA CHECK

1. Time Zone & Date – Access through Menu → Tools 
2. Image Quality – Basic – Access through information key "i"  
3. Image Size – S for Small – Access through information key "i"
4. Shooting in No Flash Auto (indicated by the top dial) 
5. Have the lens set to Auto Focus (A)  zoom and frame the image onto the source. Hold the shutter button HALF-WAY down, this will engage the lens to Auto focus onto the object in the frame (i.e. smoke stack). Once focused switch the lens to MANUAL focus (M)  This will keep the lens from changing its' focus. Due to the advanced nature of the Nikons, the Auto Focus of the lens can create issues when shooting at a stack into the sky.

AFTER OBSERVATION HAS UPLOADED:

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